

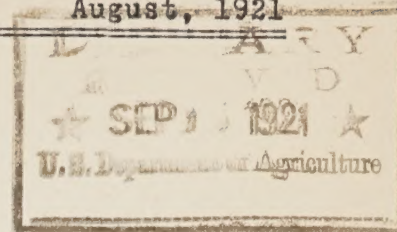
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MONTHLY LETTER OF THE BUREAU OF ENTOMOLOGY
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TRUCK-CROP INSECT INVESTIGATIONS

F. H. Chittenden, Entomologist in Charge

Neale F. Howard, in charge of research work on the Mexican bean beetle, reports that the damage by this species in the district around Birmingham, Ala., is again extremely serious, most of the Lima beans, garden beans, and field beans being already completely destroyed (August 9). The third generation of beetles has been completed, and indications are that a fourth, and possibly a fifth generation will be secured before frost. At the present time, there is a considerable migration of adults, and observations and experiments on length of flight tend to show that considerable distances may be covered.

In addition to food plants already reported, which include the various species of *Phaseolus* (garden and Lima beans), *Vigna* (cowpea), *Dolichos* (hyacinth bean), and *Glycine* (soy bean), a number of new hosts are reported, including velvet bean, alfalfa, Adzuki bean, and plants of the genus *Desmodium*. In the latter instance, injury is particularly severe. In a bean garden examined, a number of plants of beggar-weed were separated by a strip of cowpeas from several rows of badly infested Lima beans. The cowpeas were only slightly injured, while the beggar-weed was heavily infested, containing all stages of the beetle abundantly. Apparently an abundant and widely distributed wild host plant which insures the establishment of the beetle has thus been adopted.

Studies of native natural enemies and the introduction of beneficial insects from other sections of the United States are receiving serious attention. The spotted ladybird (*Megilla maculata*) has been observed to feed extensively upon the eggs. A shipment of coccinellids from California has also been tested, and recently, through A. F. Burgess, 25 pairs of the predacious ground-beetle *Calosoma sycophanta* have been under observation. An egg parasite of *Lema trilineata* is also the subject of tests regarding the possibility of its transference to the eggs of the bean beetle.

Mr. Howard, accompanied by L. L. English, field assistant, recently visited the vicinity of Chattanooga, Tenn., for the purpose of making observations on bean-beetle infestation in that area. The infestation in that vicinity and in northern Georgia is light as compared with Birmingham conditions, and no serious damage has as yet been noted. This tends to substantiate the belief that this region has been infested much more recently than that around Birmingham, Ala.

Under the direction of H. H. Kimball, of the State Plant Board of Mississippi, 30 field men of that organization visited Tuscaloosa, Ala., July 27, for the purpose of observing and familiarizing themselves with the work on the Mexican bean beetle and with its characteristics, since the pest has not as yet been found in Mississippi. Mr. Howard gave a short informal talk on the beetle, its characteristic injury and its habits, and outlined the work

under way by the Bureau office at Birmingham, Ala., while O. Z. Smith, field assistant, conducted the party over a portion of the infested district for a field study of the pest.

FRUIT INSECT INVESTIGATIONS

A. L. Quaintance, Entomologist in Charge

Dwight Isely, who has been in charge of the Bureau's laboratory at Bentonville, Ark., has resigned from the Bureau to accept the position of associate professor of entomology at the University of Arkansas at Fayetteville.

A. J. Ackerman, who has been in charge of the arsenical spray residue work at Sacramento, Calif., will complete his investigations at the close of the present season, and it is planned to return him to Bentonville, Ark., to take charge of the Bureau's laboratory at that place.

SOUTHERN FIELD CROP INSECT INVESTIGATIONS

J. L. Webb, Entomologist Acting in Charge

W. W. Porter, a graduate of the Mississippi Agricultural College, has been appointed a scientific assistant, and is stationed at Crowley, La., where he is studying rice insects in cooperation with the Louisiana Rice Experiment Station.

T. C. Barber has begun work on cactus insects in addition to his work on sugar-cane insects.

T. E. Holloway has been making weekly trips to Crowley, La., in connection with rice insect work. Mr. Holloway and Mr. Barber recently visited the laboratory at Uvalde, Tex., where J. C. Hamlin is collecting cactus insects for the Australian Government.

Geo. N. Wolcott, entomologist of the Insular Experiment Station in Porto Rico, and a collaborator of the Bureau, has completed an excellent paper on the control of the sugar cane moth borer in Porto Rico. Dr. Wolcott shows that tropical conditions make the problem of control different in Porto Rico from that of control in Louisiana.

R. H. Van Zwaluwenburg, who recently resigned from the Bureau to take a position as entomologist with the United Sugars Companies of Sinaloa, Mexico, stopped for a day in New Orleans for a visit to the sugar-cane insect laboratory at Audubon Park.

The following men have been appointed scientific assistants and assigned to the Boll Weevil Laboratory at Tallulah, La. : Roland Cowart, Richard V. Hood, L. R. Lyle, Geo. B. Ray, Geo. L. Smith, W. A. Stevenson, Adolph Thomae, V. V. Williams.

The following temporary employees assigned to the boll weevil laboratory have resigned: L. P. Hodges, Alex. G. McCarty, J. N. Crisler, I. B. Rutledge, S. N. Boyd, H. C. Young.

R. W. Wells, who is engaged in a study of the ox warble, with headquarters at Herkimer, N. Y., recently visited Washington in connection with the editing and completion of a motion picture film of the ox warble.

H. M. Brundrett has been transferred from the Federal Horticultural Board and assigned to the ox warble work at Herkimer, N. Y.

LIBRARY

Mabel Colcord, Librarian

New Books

- Alexander, C. P. The crane-flies of New York. Part II. Biology and phylogeny. p. 695-1131, pl. XII-XCVII (Cornell Univ. Agr. Expt. Sta. Memoir 38.) Ithaca, N. Y., Published by the University, June, 1920.
- Autenreith, Wilhelm. Laboratory manual for the detection of poisons and powerful drugs...tr. by William H. Warren. 5th Amer. ed. 342 p., col. pl. Philadelphia, P. Blakiston's son & co., 1921.
- Bouvier, E. L. Habitudes et metamorphoses des insectes... 321 p. illus. (Bibliotheque de philosophie scientifique.) Paris, E. Flammarion, 1921.
- Folger, J. C., and Thomson, S. M. The commercial apple industry of North America. 466 p. New York, The Macmillan company, 1921.
- Gebien, Hans. Coleoptera. Tenebrionidae. p. 213-500, illus., pl. 9-11 Leide, Librairie & Imprimerie E. J. Brill, 1920, (Nova Guinea. Resultats de l'Expedition scientifique neerlandaise a la Nouvelle Guinee en 1912 et 1913 sous les auspices de A. Franssen Herdersche, v. 13. Zoologie, livraison 3.)
- Holland, E. B., Bourne, A. I., and Anderson, P. J. Insecticides and fungicides for farm and garden crops in Massachusetts. 37 p., illus. (Mass. Agr. Expt. Station Bul. 201) Amherst, March, 1921. Literature cited: Page 35-37.
- Illingworth, J. F. A study of natural methods of control for white grubs. 20 p., illus. (Queensland Bureau of Sugar Expt. Sta. Div. Ent. Bul. 12.) Brisbane, Anthony James Cumming, Government printer, 1921.
- Kuhnt, Paul, Illustrierte bestimmungs-tabellen der kafer Deutschlands... Stuttgart, E. Schweizerbart'sche verlagsbuchhandlung. 1138 p., illus. Nagerle & dr. Sproesser, 1913.
- Martin, J. H. Botany with agricultural applications. Ed. 2 rev. 604 p., illus. New York, John Wiley & sons, inc., 1920.

Nova Scotia entomological society. Proceedings for 1920. No. 6, 89 p.,
2 pl. Truro, Printed by order of the Legislature, March, 1921.

Sirodot, S. Recherches sur les secretions chez les insectes. 136 p.,
pl. 9-20 (Ann. Sci. Nat. v. 10, p. 141-189 and 251-334, 12pl.)
Paris, Imprimerie de L. Martinet, 1859.

Reitter, Edmund, Chrysomelidae. I. Tribus Donaciini. Paskau, 1920 (Bestim-
mungstabellen der europäischen coleopteren, hft. 88) (From Wiener
Ent. Zeitung, Bd. 38, 1920.)

U. S. Dept. of Agriculture. Yearbook 1920, 888 p., illus. Washington,
Government printing office, 1921.

